UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/659,185	09/10/2003	Woodrow Norvel Anderson	2356/SPRI.105487	7488

32423 7590 06/11/2007

SPRINT COMMUNICATIONS COMPANY L.P.
6391 SPRINT PARKWAY
KSOPHT0101-Z2100
OVERLAND PARK, KS 66251-2100

EXAMINER	
FOUD, HICHAM B	
ART UNIT	**PAPER NUMBER**
2616	
MAIL DATE	**DELIVERY MODE**
06/11/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/659,185	ANDERSON, WOODROW NORVEL	
	Examiner	Art Unit	
	Hicham B. Foud	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 September 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-21* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-21* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *10 September 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claims 14 and 16 are objected to because of the following informalities:

In claim 14 line 6 the term "and/or" is confusing, the applicant must choose between "and " or "or" and cannot be both.

For claim 16, the abbreviation of terms such as "SSH" and "SNMP" need to be written in full. Appropriate correction is required.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 13-19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 13 is rejected because it is claiming a computer readable media and a method at the same time thus making the claim vague and indefinite because it is not known the metes and the bounds of the claimed invention. Also in line 3, the term "the method" has no antecedent basis.

Claims 14-19 are rejected because they depend on the rejected claim.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-7 are rejected under 35 U.S.C. 102(e) as being anticipated by Story (US 6,934,290).

For Claim 1, Story discloses in a networking environment, a method for identifying network elements and related information, comprising: providing a plurality of discovery plans, each having computer-useable instructions receivable by a network-element-discovery component to extract information from one or more network elements (see Figure 2 element 210 "Discovery process" and column 3 lines 52-55; wherein Discovery process includes stored instructions in the form of software and determines the connection information) selecting a discovery plan from the plurality to interface with the network element (see Figure 2 element 216 "Network interface" and see column 3 line 66 to column 4 line 1; Network interface may transmit and receive via network 104 messages, which may by processed by Discovery Processor); and using the selected discovery plan to extract descriptive data from the network element (see column 3 lines 54-55; Discovery process determines the connection information).

Claim 7 is rejected for the same reason as claim 1 since claim 7 is a computer readable media that performs the method of claim 1.

For Claim 2, Story discloses the method, wherein the network-element-discovery component includes a generic network-element interface (GeNEI) (see Figure 2 element 210 "Discovery process").

For Claim 3, Story discloses the method, wherein each of the plurality of discovery plans includes instructions that need to be followed to perform discovery on at least one of the network elements (see column 3 lines 52-53; wherein Discovery process includes stored instructions in the form of software which are executed by the processor).

For Claim 4, Story discloses the method, wherein selecting a discovery plan comprises: querying the network element (see column 4 lines 7-8; Discovery processor may query network); and receiving from the network element information sufficient to determine from the plurality of discovery plans the selected discovery plan that will enable the GeNEI to interrogate the network element (see column 4 lines 7-8; Discovery processor may query network and column 4 lines 13; Once the type of network has been determined; inherently the Discovery process receives information in response to the query to determine the network).

For Claim 5, Story discloses the method, wherein the network element descriptive data includes data related to the physical characteristics of the network element (see column 4 lines 41-42; List may include the identification information for each node, its ports).

For Claim 6, Story discloses the method, wherein data related to the physical characteristics of the network element includes information related to one or more of:

network cards, terminals, common controls, shelves, communications cards, circuits, ports, connections, virtual tributaries, shelves, communications capabilities, bandwidth characteristics, and identifying information (see column 4 lines 41-42; List may include the identification information for each node, its ports).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 8-12 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Story in view of Linzy (US 6,718,384).

For Claim 8, Story discloses a system for automatically populating a database with network-element information related to elements of a communications network, comprising: one or more network-element-discovery components (see Figure 2 element 210 "Discovery process"); a plurality of discovery plans, each having computer-useable instructions receivable by the network-element-discovery component to extract information from one or more network elements (see Figure 2 element 210 "Discovery process" and column 3 lines 52-55; wherein Discovery process includes stored instructions in the form of software and determines the connection information).

Story discloses all the subject matter with the exception of having an element-querying component to determine which of the plurality of discovery plans is configured

to interface with the network element, so that descriptive data can be extracted from the network element. However, Linzy discloses an element-querying component to determine which of the plurality of discovery plans is configured to interface with the network element, so that descriptive data can be extracted from the network element (see column 5 lines 12-16; Provisioning engine that may use TL1 messages, SNMP messages and/or any other appropriate protocol to query the network element and see column 5 lines 29-31; Provisioning engine determines the appropriate protocol by receiving a proper response to those types of queries and see column 5 lines 31-32; Provisioning engine may obtain the information in all of the registers in the network element). Thus, it would have been obvious to the one skilled in the art at the time of the invention to include an element query component as the Provisioning engine as taught by the invention of Linzy in the invention of Story for the purpose of determining the appropriate protocol to communicate with different network elements.

For claim 9, Linzy discloses a generic resolver for determining a communications protocol to be used to communicate with one or more of the network elements, whereby an applicable protocol-specific, device-agnostic interface can be selected to interrogate one or more of the network elements (see column 5 lines 12-16; Provisioning engine that may use TL1 messages, SNMP messages and/or any other appropriate protocol to query the network element and see column 5 lines 29-31; Provisioning engine determines the appropriate protocol by receiving a proper response to those types of queries).

For claim 10, Linzy discloses a system wherein each of the one or more network-element-discovery components is a protocol-specific, device-agnostic interface that uses one of the plurality of discovery plans to perform discovery functions on a communications network (see column 5 lines 12-16; Provisioning engine that may use TL1 messages, SNMP messages and/or any other appropriate protocol to query the network element and see column 5 lines 29-31; Provisioning engine determines the appropriate protocol by receiving a proper response to those types of queries).

For claim 11, Story discloses a system wherein each of the plurality of discovery plans includes computer-useable instructions embodied on computer-readable media that directs the network-element-discovery component how to extract information from one or more network elements(see Figure 2 element 210 "Discovery process" and column 3 lines 52-55; wherein Discovery process includes stored instructions in the form of software and determines the connection information).

For claim 12, Story discloses a system wherein information to be extracted from the one or more network elements includes identifying indicia and technical-specification data, where technical-specification data includes one or more of software versions, network addresses, identifiers, a listing of installed components, a listing of the location of installed components, a listing of the availability of services provisioned (see column 4 lines 41-42; List may include the identification information for each node, its ports).

For Claim 20, Story discloses a system for discovering and analyzing network elements of a communications network, the system comprising: a set of one of more discovery plans, wherein the discovery plans include information describing how to query one or more of the network elements (see Figure 2 element 210 "Discovery process" and column 3 lines 52-55; wherein Discovery process includes stored instructions in the form of software and determines the connection information); and a generic network-element-interface that receives the identified discovery plan to retrieve device-data from a specific network element (see Figure 2 element 210 "Discovery process"). Story discloses all the subject matter with the exception of having a generic resolver that identifies a specific discovery plan from the set of one or more discovery plans that should be used to query a specific network element. However, Linzy discloses a Provisioning engine that may use TL1 messages, SNMP messages and/or any other appropriate protocol to query the network element (see column 5 lines 12-16) and it determines the appropriate protocol by receiving a proper response to those types of queries (see column 5 lines 29-31). Thus, it would have been obvious to the one skilled in the art at the time of the invention to include a Provisioning engine as taught by the invention of Linzy and which does the same functions as the generic resolver in the invention of Story for the purpose of determining the appropriate protocol to communicate with different network elements.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 13-19 and 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Linzy (US 6,718,384)

For claim 13, Linzy discloses a One or more computer-readable media having computer-useable instructions embodied thereon for gathering and storing information about devices on a communications network, the method comprising: identifying a protocol-specific interface module to communicate with a network device (see column 5 lines 12-16; Provisioning engine that may use TL1 messages, SNMP messages and/or any other appropriate protocol to query the network element and see column 5 lines 29-31; Provisioning engine determines the appropriate protocol by receiving a proper response to those types of queries); establishing a logical connection with the network device (see column 5 lines 29-31; Provisioning engine determines the appropriate protocol by receiving a proper response to those types of queries; inherently, it establishes a logical connection through the query); determining from the device a configuration file for interrogating the device (see column 5 lines 31-32; Provisioning engine may obtain the information in all of the registers in the network element); and interrogating the device to receive device-attribute data related to the device, whereby the device-attribute data can be stored (see column 5 lines 31-32; Provisioning engine

may obtain the information in all of the registers in the network element and see Figure 5 element 44 "memory" for storage).

For claim 14, Linzy discloses a media, wherein determining a protocol-specific interface module to communicate with a network device includes at least one of the following methods: issuing a command to the network device and receiving back an indication of a protocol to be used; issuing a command to the network device and receiving back a response in the protocol to be used; and/or successively issuing a plurality of commands in various protocols until a response is received from the network device indicating which of the plurality of protocols should be used (see column 5 lines 33-35; Provisioning engine may issue a set register all command to reflect the registers and then query the registers and see column 35-37; By knowing which protocol the network uses and which register is reporting, the type of information may be determined).

For claim 15, Linzy discloses a media wherein various protocols include a communications protocol for which a protocol-specific interface can be implemented (see column 5 lines 12-16; Provisioning engine that may use TL1 messages, SNMP messages and/or any other appropriate protocol to query the network element and see column 5 lines 29-31; Provisioning engine determines the appropriate protocol by receiving a proper response to those types of queries).

For claim 16, Linzy discloses a media, wherein a communications protocol for which a protocol-specific interface can be implemented include one or more selections from the following: SNMP, TL1, Telnet, a proprietary command-line-interface, SSH,

CORBA, and Q3 (see column 5 lines 12-16; Provisioning engine that may use TL1 messages, SNMP messages and/or any other appropriate protocol to query the network element and see column 5 lines 29-31; Provisioning engine determines the appropriate protocol by receiving a proper response to those types of queries).

For claim 17, Linzy discloses a media, wherein determining a configuration file includes: receiving identifying indicia from the device; and identifying a configuration file consistent with the identifying indicia (see column 5 lines 29-31; Provisioning engine determines the appropriate protocol by receiving a proper response to those types of queries).

For claim 18, Linzy discloses a media, wherein the configuration file directs the protocol-specific interface module how to extract information from one or more network elements (see column 5 lines 51-55; the queries direct provisioning engine to obtain the existing connection parameters).

For claim 19, Linzy discloses a media, wherein using the configuration file to interrogate the device-attribute data includes information related to one or more of: network cards, terminals, common controls, communications cards circuits, ports, connections, virtual tributaries, shelves, communications capabilities, bandwidth characteristics, and identifying information (see column 4 lines 65-67; the card configurations, the connection configurations).

For claim 21, Linzy discloses a method of identifying capabilities of a network, comprising: providing a set of discovery plans (see column 4 lines 57-59; Provisioning engine may determine connection and transport parameters), identifying an appropriate

network-element-interface to use for performing discovery on one or more network devices (see column 5 lines 12-16; Provisioning engine that may use TL1 messages, SNMP messages and/or any other appropriate protocol to query the network element); identifying an appropriate discovery plan for the identified network-element-interface to use for performing discovery on said one or more network devices (see column 5 lines 29-31; Provisioning engine determines the appropriate protocol by receiving a proper response to those types of queries); retrieving data related to said one or more network devices (see column 5 lines 51-55; the queries direct provisioning engine to obtain the existing connection parameters); and automatically populating a database with the retrieved data (see column 6 lines 7-9; Provisioning engine may determine some or all of the parameters, automatically save them in memory).

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See PTO-892.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hicham B. Foud whose telephone number is 571-270-1463. The examiner can normally be reached on Monday - Thursday 10-3 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau T. Nguyen can be reached on 571-272-3126. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

HF

Hicham Foud

CHAU NGUYEN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600